

WHAT IS CLAIMED:

1. A method of treating a vascular proliferative disease in a patient in need thereof comprising administering *in vivo* a therapeutically effective amount of a gene which encodes p27. *a*

5 2. The method of claim 1, wherein said p27 contains mutations or is fused to a second polypeptide.

3. The method of claim 2, wherein said second polypeptide is thymidine kinase.

10 4. The method of Claim 1, wherein said gene is contained in an expression vector.

5. The method of Claim 4, wherein said expression vector is a eukaryotic or viral vector.

6. The method of Claim 5, wherein said viral vector is an adenoviral vector.

15 7. The method of Claim 6, wherein said adenoviral vector is replicative deficient.

8. The method of Claim 1, wherein said vascular proliferative disease is restenosis.

9. The method of Claim 1, wherein said vascular proliferative disease is atherosclerosis.

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10. The method of Claim 1, wherein said vascular proliferative disease is angiogenesis.

11. The method of Claim 2, wherein said expression vector is encapsulated in a liposome.

5 12. The method of Claim 1, wherein said patient is human.

13. The method of Claim 4, wherein about 10^6 to 10^{11} pfu per ml of nonviral and viral expression vectors are administered.

14. A method of inhibiting intimal smooth muscle cell growth in a patient comprising administering *in vivo* a therapeutically effective amount of a gene which
10 encodes p27.

15. A fusion protein of p27 operatively linked to a second polypeptide.

16. The fusion protein of claim 14, wherein said second polypeptide is thymidine kinase.

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